


Form PTO-1449  INFORMATION DISCLOSURE CITATION IN A PATENT   (several sheets followed)	Docket No. 223002010004	Application No.: 09/884,455
	Applicant: Michael Houghton et al.	
	Filing Date: June 18, 2001	Group Art Unit: 1656 Examiner: William W. Moore Confirmation No.: 1938
	Delivery Date: September 14, 2009	

## U.S. PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Name	Class	Subclass	Filing Date if Appropriate
	1.	09/27/94	5,350,671	Houghton et al.			
	2.	12/13/94	5,372,928	Miyamura et al.			
	3.	02/16/99	5,871,903	Miyamura et al.			

## FOREIGN PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Country	Class	Subclass	Translation YES NO
	4.	04/24/85	EP 0 138 111 B1	Europe			
	5.	05/31/89	EP 0 318 216 B1	Europe			
	6.	06/01/89	WO 89/04669	PCT			

## OTHER DOCUMENTS

Examiner Initials	Ref. No.	OTHER DOCUMENTS (including author, title, date, etc.)
	7.	Response to Chiron's Claim Chart Pursuant to Civil Local Rule 16-9(b) on U.S. Patent Nos. 5,371,017, 5,585,258 and 5,397,691 by Defendant Agouron Pharmaceuticals Incorporated. Chiron Corporation v. Agouron Pharmaceuticals, Inc.: Case No. C 98-2995 CW (PJH) (Related Cases C 98-9874 CW and C98-2994 CW). In the United States District Court, Northern District of California, Oakland Division, 67 pages. (08/04/1999)

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	8.	Joint Response to Chiron's Claim Chart Pursuant to Civil Local Rule 16-9(b) on U.S. Patent Nos. 5,371,017, 5,585,258 and 5,397,691 by Defendants Eli Lilly and Company and Vertex Pharmaceuticals Incorporated. Chiron Corporation v. Eli Lilly and Company, and Vertex Pharmaceuticals Inc.: Case No. C 98-2974 (Related Action Nos. C 98-2994 CW and C 98-2995 CW). In the United States District Court, Northern District of California, Oakland Division, 32 pages.
	9.	Abrahmsén et al. (1986). "Secretion of heterologous gene products to the culture medium of <i>Escherichia coli</i> " <i>Nucl. Acids Res.</i> 14(18):7487-7500.
	10.	Bazan et al. (1988). "Viral cysteine proteases are homologous to the trypsin-like family of serine proteases: Structural and functional implications" <i>PNAS</i> 85:7872-7876.
	11.	Bazan et al. (1989). "Detection of a trypsin-like serine protease domain in flaviviruses and pestiviruses" <i>Virology</i> 171:637-639.
	12.	Bazan et al. (1989). "Viral branches of the trypsin-like protease family" in UCLA Symposia on Molecular & Cellular Biology, 18th Annual Meeting, <i>J. Cell. Biochem.</i> 13A:50 (Abstract A101).
	13.	Bazan et al. (1989). "Comparative analysis of viral cysteine protease structural models" <i>FEBS Lett.</i> 249(1):5-7.
	14.	Beach et al. (1991). "Analysis of the putative nonstructural gene region of hepatitis C virus" in <u>Viral Hepatitis and Liver Disease: Proceedings of the 1990 International Symposium on Viral Hepatitis and Liver Disease: Contemporary Issues and Future Prospects</u> , Hollinger et al. eds., pp. 376-381.
	15.	Biedrzycka et al. (1987). "Characterization of protease cleavage sites involved in the formation of the envelope glycoprotein and three non-structural proteins of dengue virus type 2, New Guinea C strain" <i>J. Gen. Virol.</i> 68:1317-1326.
	16.	Boonmar et al. (1990). "Molecular Cloning of Hepatitis C Virus cDNA from Plasma of an Implicated Donor of Posttransfusion Non-A, Non-B Hepatitis" in <u>Proceedings of the 1990 International Symposium On Viral Hepatitis and Liver Disease</u> . Blaine et al. eds., Williams & Wilkins: Baltimore, pp. 371-374.
	17.	Bradley et al. (1991). "Hepatitis C virus: Background and strategies for cloning a major etiologic agent for PT-NANBH" in <u>Viral Hepatitis and Liver Disease: Proceedings of the 1990 International Symposium on Viral Hepatitis and Liver Disease: Contemporary issues and Future Prospects</u> , Hollinger et al. eds., pp. 320-328.
	18.	Brake et al. (August, 1984). "α-factor-directed synthesis and secretion of mature foreign proteins in <i>Saccharomyces cerevisiae</i> " <i>PNAS</i> 81:4642-4646.

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	19.	Castle et al. (1986). "Primary structure of the west nile flavivirus genome region coding for all nonstructural proteins" <i>Virology</i> 149:10-26.
	20.	Chambers et al. (1989). "Yellow fever virus proteins NS2A, NS2B, and NS4B: Identification and partial N-terminal amino acid sequence analysis" <i>Virology</i> 169:100-109.
	21.	Chambers et al. (1990). "Flavivirus genome organization, expression, and replication" in <i>Annual Review in Microbiology</i> , 44:649-688.
	22.	Choo et al. (April 21, 1989). "Isolation of a cDNA clone derived from a blood-borne non-A, non-B viral hepatitis genome" <i>Science</i> 244:359-362.
	23.	Choo et al. (1990). "Detection and mapping of immunologic epitopes expressed by bacterial cDNA clones of the hepatitis C virus" in <u>Viral Hepatitis and Liver Disease: Proceedings of the 1990 International Symposium on Viral Hepatitis and Liver Disease: Contemporary Issues and Future Prospects</u> , Hollinger et al. eds., pp. 345-346.
	24.	Choo et al. (September, 1989). "Hepatitis C virus is a distant relative of the flaviviruses and pestiviruses" Chapter 5 in <u>Viral Hepatitis C, D and E</u> , Shikata, ed., Excerpta Medica: New York, pp. 47-52.
	25.	Choo et al. (March 1991). "Genetic organization and diversity of the hepatitis C virus" <i>PNAS</i> 88:2451-2455.
	26.	Coia et al. (1988). "Nucleotide and complete amino acid sequences of Kunjin virus: Definitive gene order and characteristics of the virus-specified proteins" <i>J. Gen. Virol.</i> 69:1-21.
	27.	Collett et al. (1988). "Comparisons of the pestivirus bovine viral diarrhoea virus with members of the flaviviridae" <i>J. Gen. Virol.</i> 69:2637-2643.
	28.	Collett et al. (1988). "Molecular cloning and nucleotide sequence of the pestivirus bovine viral diarrhea virus" <i>Virology</i> 165:191-199.
	29.	Collett et al. (1988). "Proteins encoded by bovine viral diarrhea virus: The genomic organization of a pestivirus" <i>Virology</i> 165:200-208.
	30.	Cousens et al. (1987). "High level expression of proinsulin in the yeast, <i>Saccharomyces cerevisiae</i> " <i>Gene</i> 61:265-275.
	31.	Dalgarno et al. (1986). "Partial nucleotide sequence of the Murray Valley Encephalitis virus genome: Comparison of the encoded polypeptides with yellow fever virus structural and non-structural proteins" <i>J. Mol. Biol.</i> 187:309-323.
	32.	Deubel et al. (1988). "Nucleotide sequence and deduced amino acid sequence of the nonstructural proteins of dengue type 2 virus, Jamaica genotype: Comparative analysis of the full-length genome" <i>Virology</i> 165:234-244.

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	33.	Gorbalenya et al. (January, 1986). "Polivirus-encoded proteinase 3C: A possible evolutionary link between cellular serine and cysteine proteinase families" <i>FEBS Lett.</i> 194(2):253-257.
	34.	Gorbalenya et al. (1988). "One more conserved sequence motif in helicases" <i>Nucl. Acids Res.</i> 16(15):7734.
	35.	Gorbalenya et al. (1989). "Two related superfamilies of putative helicases involved in replication, recombination, repair and expression of DNA and RNA genomes" <i>Nucl. Acids Res.</i> 17(12):4713-4730.
	36.	Gorbalenya et al. (January 1989). "Cysteine proteases of positive strand RNA viruses and chymotrypsin-like serine proteases" <i>FEBS Lett.</i> 243(2):103-114.
	37.	Gorbalenya. (1989). "N-terminal domains of putative helicases of flavi-and pestiviruses may be serine proteases" <i>Nucl. Acids Res.</i> 17(10):3889-3897.
	38.	Hahn et al. (1988). "Nucleotide sequence of dengue 2 RNA and comparison of the encoded proteins with those of other flaviviruses" <i>Virology</i> 162:167-180.
	39.	Hopp et al. (October 1988). "A short polypeptide marker sequence useful for recombinant protein identification and purification" <i>Bio/Technology</i> 6:1204-1210.
	40.	Houghton et al. (1991). "Hepatitis C virus (HCV): A relative of the pestiviruses and flaviviruses" in <u>Viral Hepatitis and Liver Disease: Proceedings of the 1990 International Symposium on Viral Hepatitis and Liver Disease: Contemporary Issues and Future Prospects</u> , Hollinger et al. eds., pp. 328-333.
	41.	James et al. (1978). "Amino acid sequence alignment of bacterial and mammalian pancreatic serine proteases based on topological equivalences" <i>CJBIAE</i> 56(6):396-402.
	42.	Kato et al. (1989). "Japanese isolates of the non-A, non-B hepatitis viral genome show sequence variations from the original isolate in the USA" <i>Proc. Jap. Acad.</i> 659(9):219-223.
	43.	Kohl et al. (July 1988). "Active human immunodeficiency virus protease is required for viral infectivity" <i>PNAS</i> 85:4686-4690.
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	45.	Kraut (1977). "Serine proteases: Structure and mechanism of catalysis" <i>Ann. Rev. Biochem.</i> 46:331-358.
	46.	Kubo et al. (1989). "A cDNA fragment of hepatitis C virus from an implicated donor of post-transfusion non-A, non-B hepatitis in Japan" <i>Nucl. Acids Res.</i> 17(24):10367-10372.
	47.	Kuo et. al. (April 21, 1989). An assay for circulating antibodies to a major etiologic virus of human non-A, non-B hepatitis" <i>Science</i> 244:362-364.
	48.	Lain et al. (1989). "Homologous potyvirus and flavivirus proteins belonging to a superfamily of helicase-like proteins" <i>Gene</i> 82:357-362.

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	49.	Mackow et al. (1987). "The nucleotide sequence of dengue type 4 virus: Analysis of genes coding for nonstructural proteins" <i>Virology</i> 159:217-228.
	50.	Mandl et al. (1989). "Genome sequence of tick-borne Encephalitis virus (western subtype) and comparative analysis of nonstructural proteins with other flaviviruses" <i>Virology</i> 173:291-301.
	51.	Markoff. (1989). "In vitro processing of dengue virus structural proteins: Cleavage of the pre-membrane protein" <i>J. Virol.</i> 63(8):3345-3352.
	52.	Meyers et al. (1989). "Molecular cloning and nucleotide sequence of the genome of hog cholera virus" <i>Virology</i> 171:555-567.
	53.	Miller et al. (1990) "Hepatitis C virus shares amino acid sequence similarity with pestiviruses and flaviviruses as well as members of two plant virus supergroups" <i>PNAS USA</i> 87:2057-2061.
	54.	Neurath. (April 27, 1984). "Evolution of proteolytic enzymes" <i>Science</i> 224:350-357.
	55.	Nowak et al. (1989). "Analyses of the terminal sequences of west nile virus structural proteins and of the in vitro translation of these proteins allow the proposal of a complete scheme of the proteolytic cleavages involved in their synthesis" <i>Virology</i> 169:365-376.
	56.	Rice et al. (1985). "Nucleotide sequence of yellow fever virus: Implications for flavivirus gene expression and evolution" <i>Science</i> 229:726-733.
	57.	Rice et al. (1986). "Partial-N-terminal amino acid sequences of three nonstructural proteins of two flaviviruses" <i>Virology</i> 151:1-9.
	58.	Rice et al. (1986). "Chapter 10: Structure of the flavivirus genome" in <u>The Togaviridae and Flaviviridae</u> , Schlesinger et al., eds., Plenum Press: New York, pp. 279-326.
	59.	Ruiz-Linares et al. (1989). "Processing of yellow fever virus polyprotein: Role of cellular proteases in maturation of the structural proteins" <i>J. Virol.</i> 63(10):4199-4209.
	60.	Speight et al. (1988). "Gene mapping and positive identification of the non-structural proteins NS2A, NS2B, NS3, NS4B and NS5 of the flavivirus kunjin and their cleavage sites" <i>J. Gen. Virol.</i> 69:23-34.
	61.	Speight et al. (1989). "Carboxy-terminal analysis of nine proteins specified by the flavivirus kunjin: Evidence that only the intracellular core protein is truncated" <i>J. Gen. Virol.</i> 70:2209-2214.
	62.	Strauss et al. (1986). "Replication of alphaviruses and flaviviruses: Proteolytic processing of polyproteins" in <u>Positive Strand RNA Viruses: Proceedings of a UCLA Symposium held in Keystone, Colorado</u> , Brinton et al., eds., Alan R. Liss: New York, pp. 209-225.
	63.	Strauss et al. (1988). "Chapter 4: Replication of the RNAs of alphaviruses and flaviviruses" in <u>RNA Genetics: RNA directed virus Replication, Volume 1</u> , Domingo et al., eds., CRC Press: Boca Raton, Florida, pp. 71-90.

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	64.	Strauss et al. (1991). "Structure and function of the flavivirus and pestivirus genomes" in <u>Viral Hepatitis and Liver Disease: Proceedings of the 1990 International Symposium on Viral Hepatitis and Liver Disease: Contemporary Issues and Future Prospects</u> , Hollinger et al. eds., pp. 333-334.
	65.	Sumiyoshi et al. (1987). "Complete nucleotide sequence of the Japanese Encephalitis virus genome RNA" <i>Virology</i> 161:497-510.
	66.	Trent et al. (1987). "Partial nucleotide sequence of St. Louis Encephalitis virus RNA: Structural proteins, NS1, ns2a, and ns2b" <i>Virology</i> 156:293-304.
	67.	Weiner et al. (1990). "Detection of hepatitis C viral sequences in non-A, non-B hepatitis" <i>The Lancet</i> 335(8680):1-3.
	68.	Wellink et al. (1988). "Proteases involved in the processing of viral polyproteins" <i>Arch. Virol.</i> 98:1-26.
	69.	Westaway et al. (1985). "Flaviviridae" <i>Intervirology</i> 24:183-192.
	70.	Yaegashi et al. (1986). "Partial sequence analysis of cloned dengue virus type 2 genome" <i>Gene</i> 46:257-267.

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	100.	11/20/1973	3,773,924	Ho et al.			
	101.	05/13/1975	3,883,497	Gregory et al.			
	102.	06/02/1981	4,271,145	Wands et al.			
	103.	10/26/1982	4,356,164	Tabor et al.			
	104.	07/26/1983	4,395,395	Tabor et al.			
	105.	02/14/1984	4,431,740	Bell et al.			
	106.	03/20/1984	4,438,098	Tabor et al.			
	107.	08/07/1984	4,464,474	Coursaget et al.			
	108.	09/17/1985	4,542,016	Trepo			
	109.	02/11/1986	4,569,794	Smith et al			
	110.	03/24/1987	4,652,525	Rutter et al.			
	111.	11/17/1987	4,707,439	Seto et al.			
	112.	09/06/1988	4,769,331	Roizman et al.			
	113.	10/11/1988	4,777,245	Foung et al.			
	114.	09/26/1989	4,870,008	Brake			
	115.	09/26/1989	4,870,026	Wands et al.			
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	117.	08/28/1990	4,952,493	Kettner et al.			
	118.	08/28/1990	4,952,494	Zeldis et al.			
	119.	09/25/1990	4,959,317	Saeuer			
	120.	04/23/1991	5,010,175	Rutter et al.			
	121.	07/16/1991	5,032,511	Takahashi et al.			
	122.	12/31/1991	5,077,193	Mishiro et al.			
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	124.	07/21/1992	5,132,213	Bachmair et al.			
	125.	11/24/1992	5,166,057	Palese et al.			
	126.	01/05/1993	5,176,994	Mishiro et al.			
	127.	06/08/1993	5,218,099	Reyes et al.			
	128.	10/12/1993	5,252,477	Oroszlan et al.			
	129.	02/22/1994	5,288,641	Roizman			
	130.	05/31/1994	5,317,086	Bartlett et al			
	131.	06/27/1995	5,428,145	Okamoto et al.			
	132.	07/25/1995	5,436,318	Reyes et al.			
	133.	08/01/1995	5,437,974	Ryan et al.			
	134.	08/22/1995	5,443,965	Reyes et al.			
	135.	12/26/1995	5,478,727	Roizman et al.			
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	137.	05/07/1996	5,514,539	Bukh et al.			
	138.	06/18/1996	5,527,669	Resnick et al.			
	139.	07/23/1996	5,538,865	Reyes et al.			
	140.	08/27/1996	5,550,016	Okamoto			
	141.	09/03/1996	5,552,310	Yoshikura et al.			
	142.	12/17/1996	5,585,258	Houghton et al.			
	144.	01/28/1997	5,597,691	Houghton et al.			
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	146.	01/27/1998	5,712,087	Houghton et al.			
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	150.	02/03/1998	5,714,596	Houghton et al.			
	151.	04/14/1998	5,739,002	De Francesco et al.			
	152.	05/05/1998	5,747,240	Kink et al.			
	153.	05/05/1998	5,747,241	Miyamura et al.			
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	158.	12/01/1998	5,843,752	Dasmahapatra et al.			
	159.	01/05/1999	5,856,437	Miyamura et al.			
	160.	01/19/1999	5,861,267	Su			
	161.	01/26/1999	5,863,719	Houghton et al.			
	162.	02/23/1999	5,874,565	Rice et al.			
	163.	03/23/1999	5,885,799	Houghton et al.			
	164.	09/28/1999	5,959,092	Miyamura et al.			
	165.	10/19/1999	5,968,775	Houghton et al.			
	166.	11/23/1999	5,989,905	Houghton et al.			
	167.	02/22/2000	6,027,729	Houghton et al.			
	168.	05/30/2000	6,068,994	Barr			
	169.	08/01/2000	6,096,541	Houghton et al.			
	170.	09/12/2000	6,117,639	Germann et al.			
	171.	10/03/2000	6,127,116	Rice et al.			
	172.	11/14/2000	6,147,100	Seno et al.			
	173.	11/28/2000	6,153,579	Kim et al.			

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	174.	01/09/2001	6,171,782	Houghton et al.			

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	176.	10/05/1991	CA 2,079,105	Canada				
	177.	04/29/1981	0 027 657	Europe				
	178.	02/17/1982	0 046 039	Europe				
	179.	09/01/1982	0 058 676	Europe				
	180.	10/06/1982	0 061 974	Europe				
	181.	12/08/1982	0 066 296	Europe				
	182.	01/05/1983	0 068 465	Europe				
	183.	02/16/1983	0 071 640	Europe				
	184.	03/30/1983	0 074 986	Europe			Abstract	
	185.	10/26/1983	0 092 249	Europe				
	186.	08/22/1984	0 116 201	Europe				
	187.	10/03/1984	0 120 551	Europe				
	188.	11/14/1984	0 124 896	Europe			Abstract	
	189.	12/27/1984	0 128 995	Europe				
	190.	09/11/1985	0 154 392	Europe				

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	194.	09/10/1986	0 194 207	Europe				
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	196.	01/14/1987	0 208 672	Europe				
	197.	10/21/1987	0 242 300	Europe			Abstract	
	198.	04/13/1988	0 263 761	Europe				
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	202.	10/04/1989	0 335 135	Europe				
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	212.	10/16/1991	0 451 891	Europe				
	213.	01/29/1992	0 468 527	Europe				
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	215.	04/08/1992	0 479 376	Europe				
	216.	09/01/1999	0 939 128	Europe				
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	218.	06/26/1991	GB 2 239 245	Great Britain				
	219.	01/21/1982	WO 82/00205	WIPO				
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	221.	10/14/1982	WO 82/03330	WIPO				
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	223.	02/26/1987	WO 87/01131	WIPO				
	224.	10/08/1987	WO 87/05930	WIPO				
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	226.	05/19/1988	WO 88/03410	WIPO				
	227.	08/25/1988	WO 88/06184	WIPO				
	228.	11/16/1989	WO 89/10931	WIPO				
	229.	12/28/1989	WO 89/12462	WIPO				
	230.	12/28/1989	WO 89/12641	WIPO				

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	232.	09/07/1990	WO 90/10060	WIPO				
	233.	09/07/1990	WO 90/10075	WIPO				
	234.	10/04/1990	WO 90/11089	WIPO				
	235.	04/04/1991	WO 91/04262	WIPO				
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	237.	10/17/1991	WO 91/15575	WIPO				
	238.	10/17/1991	WO 91/15596	WIPO				
	239.	10/17/1991	WO 91/15771	WIPO				
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	241.	03/05/1992	WO 92/03458	WIPO				
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	245.	11/10/1994	WO 94/25602	WIPO				
	246.	01/19/1995	WO 95/02059	WIPO				
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	252.	11/14/1996	WO 96/35709	WIPO				
	253.	11/14/1996	WO 96/35717	WIPO				
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	263.	03/26/1998	WO 98/12308	WIPO				
	264.	04/02/1998	WO 98/13482	WIPO				
	265.	04/23/1998	WO 98/16657	WIPO				
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	267.	05/28/1998	WO 98/22496	WIPO				
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	902.	Answer of Defendant Eli Lilly and Company. Chiron Corporation v. Eli Lilly and Company, and Vertex Pharmaceuticals, Inc.: Case No. C-98-2974 CW ENE. In the United States District Court, Northern District of California. 09/21/98
	903.	Defendant Gilead Sciences, Inc.'s Answer to Complaint and Counterclaims, Chiron Corporation v. Gilead Sciences, Inc.: Case No. C-98-2994 VRW, United States District Court, Northern District of California. 09/21/98
	904.	Answer and Counterclaims of Defendant Agouron Pharmaceuticals, Inc. Chiron Corporation v. Agouron Pharmaceuticals, Inc.: Civil Action No. C-98-2995 SI. United States District Court, Northern District of California. 10/01/98
	905.	Defendant Gilead Sciences, Inc.'s Initial Disclosure of Prior Art Pursuant to Civil Local Rule 16-7. Chiron Corporation v. Gilead Sciences, Inc., and Related Actions: Case No. C-98-2994 CW. United States District Court, Northern District of California. 11/10/98
	906.	Vertex's Initial Disclosure of Prior Art for U.S. Patent Nos. 5,371,017, 5,585,258 and 5,597,691 under Local Rule 16-7(d). Chiron Corporation v. Eli Lilly and Company, and Vertex Pharmaceuticals Inc. Civil No. 98-2974 CW (ENE). United States District Court, Northern District of California. 11/12/98
	907.	Lilly's Initial Disclosure of Prior Art for U.S. Patent Nos. 5,371,017, 5,585,258, and 5,597,691 Under Local Rule 1607(d)-(f). 11/12/98
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	912.	Gilead Sciences, Inc.'s Response to Chiron's Proposed Claim Construction Statement on the '017, '258 and '691 Patents Pursuant to Local Rule 16-10(b). Chiron Corporation v. Gilead Sciences, Inc. Case No. C-98-2994 CW [PJH]. 03/22/99
	913.	Response Chart to Chiron's Claim Chart on U.S. Patent Nos. 5,371,017, 5,585,258 and 5,397,691 Pursuant to Local Rule 16-9(b) by Defendant Gilead Sciences, Inc. Case No. C-98-2994 CW [PJH]. 03/22/99
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	918.	Joint Claim Construction Statement Pursuant to Local Rule 16-11(b). Chiron Corporation v. Eli Lilly & Co., Vertex Pharmaceuticals, Inc. No. C-98-02974 CW [PJH], Related Action Nos. C-98-02995 CW [PJH] and C-98-02994 CW [PJH]. 09/07/99.
	919.	Amended Response Chart Pursuant to Civil Local Rule 16-9(b) by Defendants Eli Lilly and Company and Vertex Pharmaceuticals Incorporated. Chiron Corporation v. Eli Lilly and Company and Vertex Pharmaceuticals Inc. Case No. C-98-2974 CW, Related Action Nos. C-98-2994 CW and C-98-2995 CW. 10/22/99.
	920.	Amended Response Chart Pursuant to Civil Local Rule 16-9(b) by Defendants Eli Lilly and Company and Vertex Pharmaceuticals Inc. Chiron Corporation v. Eli Lilly and Company and Vertex Pharmaceuticals, Inc. Case No. C-98-2974 CW, Related Action Nos. C-98-2994 CW and C-98-2995 CW. 10/22/99
	921.	Amended Response Chart Pursuant to Civil Local Rule 16-9(b) by Defendants Eli Lilly and Company and Vertex Pharmaceuticals Incorporated. Chiron Corporation v. Eli Lilly and Company and Vertex Pharmaceuticals, Inc. Case No. C-98-2974 CW, Related Action Nos. C-98-2994 CW and C-98-2995 CW. 11/18/99.

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Examiner Initials	Ref. No.	OTHER DOCUMENTS <i>(including author, title, date, etc.)</i>
	922.	Findings of Fact, Conclusions of Law and Proposed Order for Motion 4A by Defendants Agouron Pharmaceuticals, Inc. Chiron Corporation v. Agouron Pharmaceuticals, Inc. Case No. C 98-2995 CW (PJH)
	923.	Eli Lilly and Company's and Vertex Pharmaceutical Incorporated's Proposed Findings of Fact and Conclusions of Law in Support of a Judgment to Pierce Attorney-Client Privilege and Work Product Immunity Under the Crime-Fraud Exception. Chiron Corporation v. Eli Lilly and Company and Vertex Pharmaceuticals, Inc. Case Nos. C-98-2974 CW and C-98-2995 CW.
	924.	Reporter's Transcript of Proceedings Before Special Masters Catherine A. Yanni and David W. Yount. Chiron Corporation v. Eli Lilly and Company and Vertex Pharmaceuticals, Inc.; Chiron Corporation v. Gilead Sciences, Inc.; Chiron Corporation v. Agouron Pharmaceuticals, Inc. Case Nos. C-98-2974 CW ENE, C-98-2994 CW and C-98-2995 CW. 5/24/2000.
	925.	Hearing Before Special Master. Chiron Corporation v. Eli Lilly and Company and Vertex Pharmaceuticals, Inc.; Chiron Corporation v. Gilead Sciences, Inc.; Chiron Corporation v. Agouron Pharmaceuticals, Inc. Case Nos. C-98-2974 CW ENE, C-98-2994 CW and C-98-2995 CW. 9/8/1999.
	926.	Agouron Pharmaceuticals, Inc. for Request for Examination regarding Patent No. 5,371,017 filed on December 6, 1999 with exhibits thereto.
	927.	Vertex's Objections and Responses to Chiron's First Set of Interrogatories. Chiron Corporation v. Eli Lilly & Co. and Vertex Pharmaceuticals Inc. Civil No. C-98-2974 CW [PJH], Related Action Nos. C-98-2994 CW [PJH] and C-98-2995 CW [PJH]. 03/22/99
	928.	Defendant Eli Lilly and Company's Response to Chiron's First Set of Interrogatories. Chiron Corporation v. Eli Lilly and Company and Vertex Pharmaceuticals Inc. Case Nos. C-98-2974 CW [PJH], Related Action Nos. C-98-2994 CW and C-98-2995 CW. 03/22/99
	929.	Agouron's Supplemental Objections and Responses to Chiron's First Set of Interrogatories (Nos. 1-16). Chiron Corporation v. Agouron Pharmaceuticals, Inc. Case No. C-98-02995 CW [PJH], Related Action Nos. C-98-02974 CW [PJH] and C-98-02994 CW [PJH]. 08/19/99
	930.	Chiron's Responses to Vertex's First Set of Requests to Admit (Nos. 1-9). Chiron Corporation v. Eli Lilly and Company and Vertex Pharmaceuticals Inc. No. C-98-02974 CW [PJH], Related Case Nos. C-98-02994 CW [PJH] and C-98-02995 CW [PJH]. 12/08/99
	931.	Chiron's Answers to Agouron's First Set of Interrogatories (Nos. 1-19). Chiron Corporation v. Agouron Pharmaceuticals, Inc. No. C-98-02995 CW [PJH], Related Case No. C-98-02974 CW [PJH]. 01/25/00
	932.	Chiron's Responses to Vertex's Second Set of Requests to Admit (Nos. 10-42). Chiron v. Eli Lilly and Company and Vertex Pharmaceuticals Inc. No. C-98-02974 CW [PJH], Related Action No. C-98-02995 CW [PJH]. 02/01/00

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	933.	Chiron's Responses to Lilly's First Set of Requests to Admit (Nos. 1-50). Chiron Corporation v. Eli Lilly and Company and Vertex Pharmaceuticals Inc. No. C-98-02974 CW [PJH], Related Action No. C-98-02995 CW [PJH]. 02/01/00
	934.	Chiron's Responses to Agouron's First Set of Requests to Admit, and Subtended Interrogatories and Document Requests. Chiron Corporation v. Agouron Pharmaceuticals, Inc. No. C-98-02995 CW [PJH], Related Case No. C-98-02974 CW [PJH]. 02/04/00
	935.	Chiron's Supplemental Answers to Vertex's Second Set of Interrogatories (Nos. 8, 13-15). Chiron Corporation v. Eli Lilly and Company and Vertex Pharmaceuticals Inc. No. C-98-02974 CW [PJH], Related Case No. 98-02995 CW [PJH]. 02/16/00
	936.	Chiron's Supplemental Responses to Vertex's Second Set of Request to Admit (Nos. 23 and 37). Chiron Corporation v. Eli Lilly and Company and Vertex Pharmaceuticals Inc. No. C-98-02974 CW [PJH], Related Action No. C-98-02995 CW [PJH]. 05/31/00
	937.	Chiron's Supplemental Responses to Lilly's First Set of Requests to Admit (Nos. 2, 24, 37 and 49), Chiron Corporation v. Eli Lilly and Company and Vertex Pharmaceuticals Inc. No. C-98-02974 CW [PJH], Related Action No. C-98-02995 CW [PJH]. 05/31/00
	938.	Chiron's Supplemental Answers to Agouron's First Set of Interrogatories (Nos. 15-19). Chiron Corporation v. Agouron Pharmaceuticals, Inc. No. C-98-02995 CW [PJH], Related Case No. C-98-02974 CW [PJH]. 06/12/00
	939.	Chiron Corporation's Responses to Defendant Eli Lilly and Company's Supplemental Interrogatories. Chiron v. Eli Lilly and Company and Vertex Pharmaceuticals Inc. No. C-98-02974 CW [PJH], Related Case No. C-98-02995 CW [PJH]. 06/12/00
	940.	Chiron's Supplemental Responses to Agouron's First Set of Requests to Admit (Nos. 12-15 & 17-23). Chiron Corporation v. Agouron Pharmaceuticals, Inc. No. C-98-02995 CW (PJH), Related Case No. C-98-02974 CW [PJH], Related Case No. C-98-02974 CW [PJH]. 07/19/00
	941.	Chiron's Second Supplemental Responses to Vertex's Second Set of Requests to Admit. Chiron Corporation v. Eli Lilly and Company and Vertex Pharmaceuticals Inc. No. C-98-02974 CW [PJH], Related Action No. C-98-02995 CW [PJH]. 08/21/00
	942.	Chiron's Second Supplemental Responses to Lilly's First Set of Requests to Admit. Chiron Corporation v. Eli Lilly and Company and Vertex Pharmaceuticals Inc. No. C-98-02974 CW [PJH], Related Action No. C-98-02995 CW [PJH]. 08/21/00
	943.	Duplicate of Reference No. 938.
	944.	Excerpt from Laboratory Notebook of Qui-Lim Choo dated June 9, 1989, page 9.
	945.	Excerpt from Laboratory Notebook of Qui-Lim Choo dated August 22, 1989, page 25.

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	946.	Civil Action No. C 98-2974 (CW) Chiron Corporation v. Eli Lilly, Subpoena in a civil case duces tecum, Ex. 524 at 1/25/00 deposition of A. Gorbalenya.
	947.	Transcript of deposition of Dr. Alexander E. Gorbalenya in Civil Action No. C-98-02974 (related cases Nos. C-98-02994 CW and C-98-0295 CW) in Chiron Corp. v. Eli Lilly and Co. and Vertex Pharmaceuticals, Inc. before the U.S. District Court Northern District of California, Oakland Division (January 25, 2000).
	948.	Letter from H.-J. Thiel to A. Gorbalenya dated September 11, 1990, Ex. 515 at 1/25/00 deposition of A. Gorbalenya.
	949.	Letter from H.-J. Thiel to A. Gorbalenya dated December 28, 1990, Ex. 519 at 1/25/00 deposition of A. Gorbalenya.
	950.	Letter from A. Gorbalenya to M. Collett dated March 28, 1989, Ex. 512 at 1/25/00 deposition of A. Gorbalenya.
	951.	Letter from H.-J. Thiel to A. Gorbalenya dated October 24, 1990, Ex. 517 at 1/25/00 deposition of A. Gorbalenya.
	952.	Letter from A. Gorbalenya to M. Houghton dated May 20, 1990, Ex. 514 at 1/25/00 deposition of A. Gorbalenya.
	953.	Letter from A. Gorbalenya to H.-J. Thiel dated December 1990, Ex. 518 at 1/25/00 deposition of A. Gorbalenya.
	954.	Letter from A. Gorbalenya to S. Siddell dated February 17, 1991, part of Ex. 520 at 1/25/00 deposition of A. Gorbalenya.
	955.	Letter from S. Siddell to A. Gorbalenya dated March 5, 1991, Ex. 521 at 1/25/00 deposition of A. Gorbalenya.
	956.	Letter from A. Gorbalenya and E. Koonin to S. Siddell dated June 4, 1991, Ex. 523 at 1/25/00 deposition of A. Gorbalenya.
	957.	Letter from M. Collett to A. Gorbalenya dated April 13, 1989, Ex. 513 at 1/25/00 deposition of A. Gorbalenya.
	958.	The Journal of Virology "Referee's report on Paper" March 11, 1991, part of Ex. 522 at 1/25/00 deposition of A. Gorbalenya.
	959.	The Journal of General Virology, receipt for manuscript from A. Gorbalenya dated 4.3.91 and manuscript entitled "Hepatitis C virus encodes a putative serine protease related to the proteases of flavi- and pestiviruses," both part of Ex. 520 at 1/25/00 deposition of A. Gorbalenya.

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	960.	The Journal of General Virology, "Referee's report on Paper " February 28, 1991, part of Ex. 522 at 1/25/00 deposition of A. Gorbalenya.
	961.	Chiron Laboratory Notebook #1298, pp. 184-190, 192 (Nov., 1986); (previously considered in US 08/103,961, reference I.A.117).
	962.	Independent Legal Opinion Concerning Hepatitis C Inventorship Dispute", Jun. 1991; (previously considered in US 08/103,961, reference I.A.109).
	963.	Inventorship Opinion of Gladys Monroy dated Jun. 7, 1988; (previously considered in US 08/103,961, reference I.A.119).
	964.	Letter dated Oct. 16, 1989 from Mr. Lanman of the NIH to Robert Blackburn of Chiron Corporation.
	965.	Memorandum by Dr. Houghton, dated Nov. 10, 1987; (previously considered in US 08/103,961, reference I.A.118).
	966.	Memorandum by Dr. Michael Houghton (undated); (previously considered in US 08/103,961, reference I.A.116).
	967.	Memorandum dated Nov. 11, 1987 by Dr. Michael Houghton; (previously considered in US 08/103,961, reference I.A.115).
	968.	Memorandum Re Interview of Dr. Daniel Bradley dated Apr. 11, 1991; (previously considered in US 08/103,961, reference I.A.112).
	969.	Memorandum Re Interview of Dr. Lacy Overby dated Jun. 21, 1991; (previously considered in US 08/103,961, reference I.A.114).
	970.	Memorandum Re Interview of Dr. Michael Houghton dated May 8, 1991; (previously considered in US 08/103,961, reference I.A.111).
	971.	Memorandum Re Interviews of Dr. Amy Weiner and Dr. Gary Van Nest dated Apr. 30, 1991; (previously considered in US 08/103,961, reference I.A.113).
	972.	Memorandum Re Interviews of Dr. Qui-Lim Choo and Dr. George Kuo dated May 8, 1991; (previously considered in US 08/103,961, reference I.A.110).
	973.	Excerpts of the deposition testimony of Drs. Houghton, Choo and Kuo in Civil Action Nos. C-98-02995 CN and C-98-02974 CW.
	974.	Excerpts of the deposition testimony of Drs. Houghton and Choo in Civil Action Nos. C-98-02995 CN and C-98-02974 CW.

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	975.	04/04/1990	07/505,434	Rosenberg application			
	976.	04/04/1991	07/680,358	Rosenberg application			
	977.	09/28/1992	07/956,433	Rosenberg application			
	978.	09/02/1993	08/116,048	Rosenberg application			
	979.	06/06/1994	08/254,496	Rosenberg application			
	980.	11/04/1986	4,620,948	Builder et al.			
	981.	11/15/1988	4,784,950	Hagen et al.			
	982.	05/29/1990	4,929,700	Halenbeck et al.			
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	984.	12/11/1990	4,977,248	Creighton			
	985.	11/10/1992	5,162,507	Wolfe et al.			
	986.	05/17/1994	5,312,737	Bolling et al.			

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	987.	02/10/1994	DE4240980	Germany			Abstract	
	988.	12/14/1989	DE P3819846	Germany			Abstract	
	989.	04/08/1987	0 217 645	Europe				
	990.	04/29/1987	0 219 874	Europe			Abstract	
	991.	06/19/1991	0 433 225	Europe				
	992.	12/23/1993	WO 93/25575	WIPO				
	993.	01/06/1989	64-02576	Japan			Abstract	
	994.	05/17/1989	1-124387	Japan			Abstract	
	995.	11/22/1994	6-319583	Japan			Abstract	
	996.	07/22/1997	9-187285	Japan			Abstract	

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	1008.	Burow, B.V. (1982) "Klinischer verlauf and prognose der virushepatitis c--prospektive studie über zwei jahre" <i>Klinische Medizin, Dt. Gesundh.-Wesen</i> 37, Heft 2, pp. 56-60, with English abstract.
	1009.	Calisher et al. (1988) "Chapter 2: Arbovirus Serogroups: Definition and Geographic Distribution", <u>The Arboviruses: Epidemiology and Ecology</u> , Volume 1, Monath, T.P. ed., CRC Press, Inc., pp. 19-57.
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	1030.	Inokuchi et al. (1994). "Correlation of quantitative HCV-RNA levels using a branched DNA enhanced level amplification assay with therapeutic effects of $\beta$ -interferon in patients with chronic hepatitis C" <i>Int Hepatology Comm.</i> 2:375-382.
	1031.	Iwarson, S.A. (September 26, 1987) "Non-A, non-B hepatitis: dead ends or new horizons" <i>British Medical Journal</i> 295:946-948.
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	1033.	Kendrey, G. et al., (1975) "Intranuclear virus-like particles in HB <sub>8</sub> AG and IH <sub>X</sub> AG negative acute hepatitis (type C?) <i>Acta Morphologica Acad. Sci. Hung.</i> 23(2):173-177
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	1035.	Kohara, M. (1993). "Antigenicities of Groups I and II Hepatitis C Virus" <i>Nippon Rinsho</i> 51(2):338-343, with English abstract.
	1036.	Lin, C. (1997) "The hepatitis C virus NS4A protein: interactions with the NS4B and NS5A proteins" <i>4th International Meeting on Hepatitis C virus and related viruses, Molecular Virology and Pathogenesis</i> , March 6-10, 1997, Kyoto International Conference Hall, Japan, page 20, abstract.

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	Applicant: Michael Houghton et al.	
	Filing Date: June 18, 2001	Group Art Unit: 1656 Examiner: William W. Moore Confirmation No.: 1938
	Delivery Date: September 14, 2009	

Examiner Initials	Ref. No.	OTHER DOCUMENTS (including author, title, date, etc.)
	1037.	Maezo, M. et al., (1990) "Isolation and characterization of a cDNA that is closely associated with non-a, non-e hepatitis" <i>The 1990 International Symposium of Viral Hepatitis and Liver Disease, April 4, 1990-April 8, 1990</i> , Abstract no. 365, one page.
	1038.	Matsuda, J.-I. (February 1998) "Transgenic mouse expressing a full-length hepatitis C virus cDNA" <i>Jpn. J. Cancer Res.</i> 89:150-158.
	1039.	Moenkli, P.A. et al., (1990) "Epitope mapping of the HCV nonstructural region" <i>International Symposium of Viral Hepatitis and Liver Disease, April 4, 1990-April 8, 1990</i> , Abstract No. 358, one page.
	1040.	Monath TP, (1989) "Chapter 51: Yellow Fever." in <i>The Arboviruses: Epidemiology and Ecology</i> , Volume 5, Monath, T.P. ed., CRC Press, Inc., pp. 139-231.
	1041.	Morgenstern, K.A. et al., (1997) "Polynucleotide modulation of the protease, NTP-protease and helicase activities of a hepatitis C virus NS3-NS4 complex isolated from transfected COS cells" <i>4th International Meeting on Hepatitis C virus and related viruses, Molecular Virology and Pathogenesis</i> , March 6-10, 1997, Kyoto International Conference Hall, Japan, page 100, abstract.
	1042.	Murphy, H.M.K. et al, (February 26, 1999) "Dengue virus NS3 serine protease" <i>J. Biol. Chem.</i> 274(9):5573-5580.
	1043.	Nelson, D. R. et al. (February 1, 1997). "The role of hepatitis C virus-specific cytotoxic T lymphocytes in chronic hepatitis C," <i>J. Immun.</i> 158(3):1473-1481.
	1044.	Nicklin et al. (December 1988) "Poliovirus proteinase 3C: Large-scale expression, purification and specific cleavage activity on natural and synthetic substrates in vitro," <i>J. Virol.</i> 62: 4586-4593.
	1045.	Nishioka et al. (January 15, 1991). "A high prevalence of antibody to the hepatitis C virus in patients with hepatocellular carcinoma in Japan." <i>Cancer.</i> 67(2):429-433.
	1046.	Pasquo, A. et al., (1998) "Rational design and functional expression of a constitutively active single-chain NS4A-NS3 protein" <i>Fold. Des.</i> 3(6):433-441.
	1047.	Reed, K. E. et al., (July 1998) "The NS5A/NS5 proteins of viruses from three genera of the family <i>Flaviviridae</i> are phosphorylated by associated serine/threonine kinases" <i>J. Virol.</i> 72(7):6199-6206.
	1048.	Rice, C.M. (December 1990). "Overview of flavivirus molecular biology and future vaccine development via recombinant DNA." <i>Southeast Asian J Trop Med Public Health.</i> 21(4):670-677.
	1049.	Rico-Hesse et al., (1990) "Molecular Evolution and distribution of dengue viruses types 1 and 2 in nature" <i>Virology</i> 174:479-493.
	1050.	Shafran, S.D. et al. (May/June 1996). "A B C D E F G ..." <i>Can. J. Infect. Dis.</i> 7(3):181-182.

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	Applicant: Michael Houghton et al.	
	Filing Date: June 18, 2001	Group Art Unit: 1656 Examiner: William W. Moore Confirmation No.: 1938
	Delivery Date: September 14, 2009	

Examiner Initials	Ref. No.	OTHER DOCUMENTS <i>(including author, title, date, etc.)</i>
	1051.	Sherman, G. et al. (1997) "Development of a permanent cell line which expresses HCV nonstructural proteins" <i>Abstracts of the 37th Interscience Conference on Antimicrobial Agents and Chemotherap</i> , September 28-October 1, 1997, Toronto, Ontario, Canada 37:217, Abstract No. H-20.
	1052.	Spall, et al. (1997) "Viruses employing polyprotein processing as the principal strategy of genome expression" <i>Seminars in Virol.</i> 8:16-23.
	1053.	Strauss, J.H. et al. (1990). "The Structure and Function of the Flavivirus and Pestivirus Genomes," <i>Proceedings of the 1990 International Symposium on Viral Hepatitis and Liver Disease</i> , pp. 1-40.
	1054.	Takeuchi, K. et al., (1990) "Molecular cloning of hepatitis C virus cDNA from plasma of an implicated donor of post-transfusion non-a, non-b hepatitis" <i>International Symposium of Viral Hepatitis and Liver Disease, April 4, 1990-April 8, 1990</i> , Houston, Texas, Abstract No. 363, one page.
	1055.	Tramontano, A. (1998) "Homology modeling with low sequence identity" <i>Methods; A companion to Methods in Enzymology</i> 14:293-300.
	1056.	Tsai, S.L. et al., (February 1997) "Detection of type-2-like T-helper cells in hepatitis C virus infection: implications for hepatitis C virus chronicity" <i>Hepatology</i> 25(2):449-458.
	1057.	Tsukiyama-Kohara, K. et al. (1991). "A second group of hepatitis C viruses" <i>Virus Genes</i> 5(3):243-254.
	901.	Zuckerman, A.J., (1990) "Hepatitis C virus: a giant leap forward" <i>Hepatology Elsewhere</i> 11(2):322-323.

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	Applicant: Michael Houghton et al.	
	Filing Date: June 18, 2001	Group Art Unit: 1656
	Delivery Date: September 4, 2009	

## U.S. PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Name	Class	Subclass	Filing Date If Appropriate

## FOREIGN PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Country	Class	Subclass	Translation YES NO

OTHER DOCUMENTS *(including author, title, Date, Pertinent Pages, Etc.)*

Examiner Initials	Ref. No.	Title
	1058.	Agouron's Request for Reexamination of U.S. Patent No. 5,585,258 and appendix.
	1059.	Order re: Defendant Agouron's Motion For <i>In Camera</i> Review of Various Chiron Documents Pursuant to the Crime-Fraud Exception to the Attorney-Client Privilege. Special Master Yanni, Case No. C-98-2974 CW, Related Action Nos. C-98-2994 CW and C-98-2995 CW. United States District Court, Northern District of California. 4/16/01.

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## OTHER DOCUMENTS

Examiner Initials	Ref. No.	OTHER DOCUMENTS <i>(including author, title, date, etc.)</i>
	1060.	Clerk's Notice Deeming Objection Denied, Chiron Corporation v. Agouron Pharmaceutical, Inc., in Civil Action No. Case No. C-98-2995 CW, June 12, 2001, 3 pages.
	1061.	Order re: Defendants Lilly and Vertex's Crime-Fraud Motion in Civil Action No. C-98-02974 CW (PJH) (related cases Nos. C-98-02994 CW (PJH) and C-9802995 CW (PJH) in Chiron Corp. v. Eli Lilly and Co. and Vertex Pharmaceuticals, Inc. before the U.S. District Court of Northern District of California, Oakland Division June 11, 2001, pp. 1-25.
	1062.	Anonymous, (May 16, 1988) "Chiron wins non-A, non-B virus race; rivals concede" <i>Biotechnology Newswatch</i> , 8(10):1 and 3.
	1063.	Anonymous, (August 7, 1989) "Hepatitis C antigens cloned" <i>Biotechnology Newswatch</i> , one page.
	1064.	Anonymous, (August 5, 1989) "Will the real hepatitis C stand up?" <i>The Lancet</i> , 2(8658):307-308.
	1065.	Anonymous, (October 8, 1996) "Call to Prioritise Hepatitis C," <i>Scrip</i> No. 2170, page 20, located in Dialog database, file 129, 2 pages.
	1066.	Bartenschlager, R. (1997) "Molecular Targets in Inhibition of Hepatitis C Virus Replication" <i>Antiviral Chemistry and Chemotherapy</i> 8(4):281-301.

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	Applicant: Michael Houghton et al.	
	Filing Date: June 18, 2001	Group Art Unit: 1656
	Delivery Date: September 4, 2009	

Examiner Initials	Ref. No.	OTHER DOCUMENTS (including author, title, date, etc.)
	1067.	Beach, M. and Bradley, M. (1990) "Analysis of the Putative Nonstructural Gene Region of Hepatitis C Virus," Section 4: Hepatitis C Virus in <i>Proceedings of the 1990 International Symposium on Viral Hepatitis and Liver Disease: Contemporary Issues and Future Prospects</i> , F.B. Holligner, M.D. et al. eds., Williams and Wilkins, pp. 376-381.
	1068.	Blair, C.S. et al. (1996) "Anti-infectives: current perspectives on the treatment and prevention of hepatitis C infection" <i>Exp. Opin. Invest. Drugs</i> 5(12):1657-1671.
	1069.	Bradley, D.W. et al., (February 1981) "Persistent non-A, non-B hepatitis in experimentally infected chimpanzees" <i>The Journal of Infectious Diseases</i> , 143(2):210-218.
	1070.	Bradley, D.W. et al., (1984) "Non-A, non-B hepatitis in chimpanzees: effects of immunosuppression on course of disease and recovery of tubule-forming agent from infected liver" Chapter 39 in <i>Viral Hepatitis and Liver Disease</i> , G.N. Vyas, et al., eds., Grune and Stratton, Inc., pp. 451-458.
	1071.	Bradley, D.W. et al., (1990) "The viruses of non-A, non-B hepatitis" <i>VIIIth International Congress of Virology</i> , Berlin, Abstract W11-001.
	1072.	Collett, M.S. et al., (1990) "Molecular characterization of the pestivirus bovine viral diarrhea virus" <i>VIIIth International Congress of Virology</i> , Berlin, Abstract W21-001.
	1073.	Esposito, G. et al. (1995) "Inhibition of NS3-NS4A dependent HCV polyprotein processing by a human monoclonal antibody" <i>Fifth International Symposium on Hepatitis C virus and related viruses (Molecular Virology and Pathogenesis)</i> , Australia, August 28-September 3, 1995, one page abstract.
	1074.	Failla, C. et al. (1995) "Engineering the hepatitis C virus NS3 protease: design of new specificities" <i>Fifth International Symposium on Hepatitis C virus and related viruses (Molecular Virology and Pathogenesis)</i> , Australia, August 28-September 3, 1995, one page abstract.
	1075.	Fields, H.A. et al. (1982) "Non A/Non B hepatitis detection methodology: A review" <i>The ligand Quaterly</i> , 5(1):29-33.
	1076.	Graf, L. et al., (1987) "Selective alteration of substrate specificity by replacement of aspartic acid-189 with lysine in the binding pocket of trypsin" <i>Biochemistry</i> 26(9):2616-2623.
	1077.	Gravelle, C.R. et al., (June 1982) "Temporal patterns of ultrastructural alterations in hepatocytes of chimpanzees with experimental non-A, non-B hepatitis" <i>The Journal of Infectious Diseases</i> 145(6):854-858.

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	Applicant: Michael Houghton et al.	
	Filing Date: June 18, 2001	Group Art Unit: 1656
	Delivery Date: September 4, 2009	

Examiner Initials	Ref. No.	OTHER DOCUMENTS <i>(including author, title, date, etc.)</i>
	1078.	Griffith, V. (February 25, 1997) "A cure in search of diseases: researchers aim to extend protease inhibitor's success against Aids to other disorders", <i>Financial Times Limited (London)</i> , page 15.
	1079.	Kim, J.L. et al., (April 4, 1997) Erratum in Cell 89(1):159 of article published in Cell 87(2):345-355 on October 18, 1996 entitled "Crystal structure of the hepatitis C virus NS3 protease domain complexed with a synthetic NS4A cofactor peptide".
	1080.	Pletnev, A.G. et al., (January 1990) "Nucleotide sequence of the genome and complete amino acid sequence of the polyprotein of tick-borne encephalitis virus" <i>Virology</i> 174(1):250-263.
	1081.	Russell, P.K. et al., (1980) "Chemical and antigenic structure of flaviviruses" Chapter 18, in <u>The Togaviruses, Biology, Structure, Replication</u> , Schlesinger, R.W., ed., Academic Press, pp. 503-529.
	1082.	Sherman, G. et al., "Development of a permanent cell line which expresses hcv nonstructural proteins" Abstract No. H-20, one page.
	1083.	Sudo et al., (1997) "Novel hepatitis C virus protease inhibitors: 2,4,6-trihydroxy, 3-nitro-benzamide derivatives." <i>Antiviral Chemistry &amp; Chemotherapy</i> , 8(6):541-544.
	1084.	Tabor, E. et al., (1979) "Detection of an antigen-antibody system in serum associated with human non-A, non-B hepatitis" <i>Journal of Medical Virology</i> 4:161-169.
	1085.	Tainer, J.A. et al. (1991) "Metal-binding sites in proteins" <i>Curr Opin Biotechnol.</i> 2(4):582-591.
	1086.	Tsiang, M. "Substrate specificity of HCV NS3 genome analyzed with modified peptide substrates" <i>Antiviral Research</i> Abstract No. 180, one page.
	1087.	Villarejos, V.M. et al., (1984) "Observations on an antigen-antibody system related to non-A, non-B hepatitis" Chapter 28 in <u>Viral Hepatitis and Liver Disease</u> , G.N. Vyas et al., eds., Grune and Stratton, 367-369.
	1088.	Villarreal et al. (January 27, 1997) "Structural Bioinformatics, Inc. and CyberChemics, Inc. collaborate to speed the generation of hepatitis C viral protease inhibitors" <i>Business Wire</i> , p1270170, located in Dialog database in file 649, fulltext, 2 pages.

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Form PTO-1449  <b>INFORMATION DISCLOSURE CITATION IN A PATENT</b>  <i>(several sheets followed)</i>	Docket No. 223002010004	Application No.: 09/884,455
	Applicant: Michael Houghton et al.	
	Filing Date: June 18, 2001	Group Art Unit: 1656
	Delivery Date: September 4, 2009	

Examiner Initials	Ref. No.	OTHER DOCUMENTS <i>(including author, title, date, etc.)</i>
	1089.	Order Following <i>In Camera</i> Review of Chiron's Privileged Documents Pursuant to Agouron Crime-Fraud Motion in Civil Action No. C-98-02974 CW (PJH) (related cases Nos. C-98-02994 CW (PJH) and C-9802995 CW (PJH) in Chiron Corp. v. Eli Lilly and Co. and Vertex Pharmaceuticals, Inc. before the U.S. District Court of Northern District of California, Oakland Division July 18, 2001, 5 pages.

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	Applicant: Michael Houghton et al.	
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## U.S. PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Name	Class	Subclass	Filing Date if Appropriate
	1090.	06/16/1987	4,673,634	Seto et al.			
	1091.	10/27/1987	4,702,909	Villarejos et al.			
	1092.	12/06/1994	5,371,017	Houghton et al.			

## FOREIGN PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Country	Class	Subclass	Translation YES NO	
	1093.	06/01/89	WO89/04669	WIPO				

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Examiner Initials	Ref. No.	OTHER DOCUMENTS <i>(including author, title, date, etc.)</i>
	1094.	Korant et al., (1988) "Viral proteases: an emerging therapeutic target" <i>CRC Crit. Rev. Biotech.</i> 8(2):149-157.
	1095.	Pichuantes, S. et al., (1989) "Expression of authentic and enzymatically active HIV-1 proteinase in bacteria and yeast" in <u>Current Communications in Molecular Biology, Viral Proteases as Targets for Chemotherapy</u> , Cold Spring Harbor Laboratory Press, Krausslich, H. et al., Eds., pp. 215-222.
	1096.	McQuade et al., (1990) "A synthetic HIV-1 protease inhibitor with antiviral activity arrests HIV-like particle maturation" <i>Science</i> 247:454-456.
	1097.	Order Sustaining Plaintiff's Objection to Special Master's Order Re: Defendants Lilly and Vertex's Crime-Fraud Motion for the United States District Court for the Northern District of California for Civil Case No. C 98-02974 CW, between Plaintiff, Chiron Corporation and, Defendants, Eli Lilly and Co., Vertex Pharmaceuticals Inc., 14 pages.
	1098.	Chiron Corporation's request for reexamination of the 5,371,017 patent, filed with the United States Patent and Trademark Office on October 8, 1999, 8 pages, with U.S. PTO Form 1449, 5 pages.

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	Applicant: Michael Houghton et al.	
	Filing Date: June 18, 2001	Group Art Unit: 1656
	Delivery Date: September 4, 2009	

Examiner Initials	Ref. No.	OTHER DOCUMENTS <i>(including author, title, date, etc.)</i>
	1099.	Order Granting Request for Reexamination of the 5,371,017 patent, control no. 90/005,512, issued on December 22, 1999, paper no. 5, 3 pages, and intialled Form 1449 (5 pages), and Notice of Reexamination Request Filing Date, one page (paper no. 3).
	1100.	Order Granting Request for Reexamination of the 5,371,017 patent, control no. 90/005,582, issued on February 22, 2000, paper no. , 4 pages, with U.S. PTO Form 1449.
	1101.	Office Action in Reexamination of the 5,371,017 patent, issued on November 9, 2000, paper no. 6, 4 pages.
	1102.	Chiron Corporation's request for reexamination of the 5,585,258 patent, filed with the United States Patent and Trademark Office on October 8, 1999, 7 pages, with U.S. PTO Form 1449, 5 pages.
	1103.	Order Granting Request for Reexamination of the 5,585,258 patent, control no. 90/005,513, issued on December 22, 1999, paper no. 5, 5 pages, and intialled Form 1449 (5 pages), and Notice of Reexamination Request Filing Date, one page (paper no. 3).
	1104.	Office Action in Reexamination of the 5,585,258 patent, issued on November 9, 2000, 5 pages.
	1105.	Patent Owner's Response to Office Action in Reexamination of the 5,585,258 patent, under 37 C.F.R. §1.550(b) filed on February 20, 2001, 15 pages, with Exhibits A-M.
	1106.	Chiron Corporation's request for reexamination of the 5,397,691 patent, filed with the United States Patent and Trademark Office on October 8, 1999, 7 pages, with U.S. PTO Form 1449, 5 pages.
	1107.	Order Granting Request for Reexamination of the 5,397,691 patent, control no. 90/005,514, issued on December 22, 1999, paper no. 5, 4 pages, and intialled Form 1449 (5 pages).
	1108.	Office Action in Reexamination of the 5,397,691 patent, issued on November 9, 2000, 4 pages.
	1109.	Patent Owner's Response to Office Action in Reexamination of the 5,397,691 patent, under 37 C.F.R. §1.550(b) filed on February 20, 2001, 15 pages, with Exhibits A-M.
	967.	Memorandum by Dr. Michael Houghton (undated); (previously considered in US 08/103,961, reference I.A.116).

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